

Amendments to the Specification:

Please delete Paragraph [0001].

Please replace Paragraph [0009] with the following replacement paragraph:

[0009] This object is achieved according to the invention by a microscope having at least one illumination beam path and at least one detection beam path, characterized in that each illumination beam path is provided with a focusing arrangement for producing a two-dimensional object illumination region which extends in the direction of an illumination axis of the illumination beam path and transversely thereto, wherein a detection direction of the at least one detection beam path is approximately orthogonal to the two-dimensional object illumination region, and wherein a mobile arrangement is provided for producing a relative movement between the two-dimensional object illumination region and an object to be studied ~~the microscope as specified in claim 1.~~ The sample is illuminated by a thin light strip, and the viewing takes place perpendicularly to this object illumination region, which has a two-dimensional extent. The thickness of the illumination light strip thus determines the depth of focus of the system to a substantial extent. For imaging, the object is moved through the stationary light strip, and fluorescent and/or scattered light is recorded by a two-dimensional detector in each position of the scan movement. Since the object can be rotated in the preferred embodiment, it is possible to perform such three-dimensional imaging from several sides and combine these to form a single three-dimensional image, the resolution of which is essentially determined by the lateral resolution of the individual images. The high resolution of this image results from the focused illumination, the

perpendicular detection, the movement of the object and the combination of individual exposures by image processing.

Corrections to the Drawings:

Applicants submit herewith replacement Fig. 3, where the replacement Figure 3 does not have any reference characters missing or cut off.